

# **REFERENCE MATERIALS FOR WILDLIFE**

## **Maine Audubon Resources**

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For resources check Maine Audubon Web Site:

*[www.maineaudubon.org](http://www.maineaudubon.org)*

New resources are continually posted on this site about resource management, conservation of wildlife and wildlife habitat; including endangered species, vernal pool protection and northern forest land conservation.

<http://maineaudubon.org/publications-resources/>

Particular attention to: Piping Plovers, Least Terns & Coastal Beaches, Loons & Lakes

Some links your team should review:

<http://maineaudubon.org/wildlife-habitat/the-piping-plover-and-least-tern-monitoring-project/>

2013 Loon count data will be available by January 15 <http://maineaudubon.org/wildlife-habitat/the-maine-loon-project/>

Wildlife road watch. Become familiar with what the site provides  
[www.wildlifecrossing.net/maine](http://www.wildlifecrossing.net/maine)

Other resources and links are located on this website  
<http://www.maineaudubon.org/explore/envirothon.shtml>

Teacher Enrichment <http://maineaudubon.org/education/out-in-the-field-2/>

Bird and mammal mounts and kits are available for loan through the Maine Audubon Teachers' Resource Center in Falmouth Cost: \$20/teacher; contact 781-2330 FMI

## **Maine Department of Inland Fisheries and Wildlife Resources**

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Department of Fish and Wildlife  
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### **More Wildlife Team Preparation Suggestions:**

Take an Envirothon Team Field Trip to the Maine Wildlife Park in Gray, [www.mainewildlifepark.com](http://www.mainewildlifepark.com); for wildlife identification practice; a variety of Maine mammals, ground birds, raptors and turtles are on display, plus exhibits around the park can aid your Envirothon teams in their wildlife identification expertise.

Borrow a Wildlife Safari Kit from any of several locations statewide:  
[http://www.maine.gov/ifw/education/schools\\_teachers/wildlife\\_trunk.htm](http://www.maine.gov/ifw/education/schools_teachers/wildlife_trunk.htm)

Visit one of the many Maine Audubon Sanctuaries throughout the state for resources (call 781-2330 for more information). The Maine State Museum in Augusta and the L.C. Bates Museum in Skowhegan have good collections of mounted specimens for your teams to study!! Please make an effort to utilize these resources!!

Please use the state Fish and Wildlife Web Site for lots of information:

***www.mefishwildlife.com***

**Teams Should Read and Review these MDIFW Wildlife Resources:**

1. Current Wildlife Division Research and Management Annual Report  
(available on the IFW WEB SITE or from regional fish and wildlife offices)
2. Current Maine Endangered and Nongame wildlife information  
(on the WEB SITE)
4. Maine Animal Tracks, 11 x 17 handout
5. Current Maine Hunting and Trapping Regulations summaries  
(on the WEB SITE)
6. Maine's Endangered and Threatened Wildlife BOOK (check your school library for a copy or available from IFW for \$5.00)
7. *You Alone in the Woods*, the Lost Hunter's Guide - available from IFW
8. *Eagle Feathers and Moose Antlers; Black Market Wildlife*; Maine Fish and Wildlife articles: the legalities, ins and outs; cans and cant's of possessing wildlife or wildlife parts - available from IFW
9. *What Kind of 'Vore' are you?* (ME Fish and Wildlife article: guide to teeth patterns and diet of different kinds of wildlife) - available from IFW
10. *Critters of Maine*- a pocket guide (check your school library for a copy or available from IFW for \$5.95).
11. Amphibian, Snake and Turtle natural history posters- set of three available for \$8.00 from IFW
12. Birds of Maine Posters - set of three available for \$8.00 from IFW
13. Fishes of Maine - free booklet available from MDIFW
14. Maine Mammal Poster – available for \$1.50 from IFW
15. Maine Endangered Species Poster – available for \$.50 from IFW
16. **New** Two Bat posters – Free & available for cost of postage

[http://www10.informe.org/webshop\\_ifw/index.php?storeID=2](http://www10.informe.org/webshop_ifw/index.php?storeID=2)

**2014 CURRENT TOPIC:** Here are several other Websites for wildlife information as it related to the current topic – REMEMBER -- regional and state wildlife test questions will be drawn from these sources!

For information on how livestock affects water quality

<http://www.nrdc.org/water/pollution/farms.asp>

[http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Fact\\_Sheet/Animal%20Agriculture%20and%20Water%20Pollution.pdf](http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Fact_Sheet/Animal%20Agriculture%20and%20Water%20Pollution.pdf) ,

[http://www.ase.tufts.edu/gdae/Pubs/rp/AAI\\_Issue\\_Brief\\_2\\_1.pdf](http://www.ase.tufts.edu/gdae/Pubs/rp/AAI_Issue_Brief_2_1.pdf)

[http://www.maine.gov/ifw/wildlife/human/lww\\_information/laws.html](http://www.maine.gov/ifw/wildlife/human/lww_information/laws.html)

**read through** to see how a variety of Maine wildlife may cause damage to agricultural crops

<http://www.maine.gov/ifw/wildlife/human/living.html>

**read through** to see how a variety of Maine wildlife can cause nuisance damage that could be related to farms and farming practice

**Read through** all of the following to see how farming practice can be damaging to aquatic habitats and organisms

[http://www.nrcs.usda.gov/Internet/FSE\\_PLANTMATERIALS/publications/idpmcbr10757.pdf](http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmcbr10757.pdf)

[http://na.fs.fed.us/spfo/pubs/n\\_resource/buffer/cover.htm](http://na.fs.fed.us/spfo/pubs/n_resource/buffer/cover.htm)

<http://www.raritanbasin.org/RaritanAg/RiparianPosition.pdf>

<http://www.meepi.org/files06/blueberriesandsalmon.pdf>

**\*\*\*Make sure you look for and make note of any wildlife references in all suggested current topic resource information.\*\*\***

## **WILDLIFE STATION      WILDLIFE ESSENTIAL TOPICS**

References to "common and endangered wildlife species" refer to the attached list of habitat types and representative wildlife species, and the list of endangered wildlife species in Maine.

1. Relationships Between Habitat and Wildlife Species
  - a) Identification and Natural History of Common and Endangered Wildlife Species
  - b) Basic Components of Habitat for all Wildlife Species
  - c) Specific Habitat Requirements of Common and Endangered Wildlife Species
  - d) Classification of Habitat Types, Including Relationships Between Soil Type and Vegetation
  - e) Management Practices to Enhance Habitat For Common and Endangered Wildlife Species
2. Understanding Wildlife Ecology
  - a) Predator-Prey Relationships
  - b) Adaptations
  - c) Population Dynamics
  - d) Carrying Capacity and Limiting Factors
  - e) Food Chains and Food Webs
3. Issues Involving Wildlife and Society
  - a) Endangered and Threatened Wildlife Species
  - b) Land Use and Habitat Loss, Including Wetlands
  - c) Introduced and Reintroduced Wildlife Species
  - d) Hunting and Trapping
  - e) Human Health
  - f) Maine Department of Inland Fisheries and Wildlife (MDIFW) and its Responsibilities
  - f) g) Maine Audubon and its Responsibilities
  - h) Current Issue

## **WILDLIFE LEARNING OBJECTIVES**

Envirothon students should have an understanding of the biology, ecology and habitat requirements of wildlife species in Maine. At a minimum, students should be familiar with the habitat types and associated wildlife species listed on the web site, as well as being familiar with Maine's endangered species. Students should be able to apply that knowledge to site specific situations. Interpretation of habitat information and evaluation of habitat quality in general, and in relation to specific wildlife species, are essential skills in wildlife management and conservation.

### **1. Relationships Between Habitat and Wildlife Species**

Envirothon students will be able to:

- identify common and endangered wildlife species from silhouettes, mounted specimens or pictures (keys may be used in some instances.)
- identify common and endangered wildlife species based on wildlife sign such as fur, hair, feathers, gnawings, rubbings, pellets, scat, and tracks (keys may be used in some instances.)
- answer questions concerning the natural history of common and endangered wildlife species.
- identify basic needs required by wildlife for survival.
- identify habitat requirements for common and endangered wildlife species.
- describe ways habitat can be improved for common and endangered wildlife species.
- evaluate a given habitat and identify the wildlife species most likely to live there.

### **2. Understanding of Wildlife Ecology**

Envirothon students will be able to:

- describe predator-prey relationships and be able to cite examples.
- describe specific adaptations of common and endangered wildlife species to their environment and their role in the ecosystem.
- describe factors that limit or enhance population growth.
- discuss concepts of carrying capacity and limiting factors.
- describe food chains and food webs and be able to cite examples.

### **3. Issues Involving Wildlife and Society**

Envirothon students will be able to:

- discuss the main causes of wildlife population declines that lead to a species being listed as threatened or endangered.
- discuss the effect of land use decisions on wildlife habitat.
- discuss the consequences of introducing or reintroducing wildlife species in terms of the species effect on habitat, other wildlife species and humans.
- discuss the function of hunting and trapping regulations.
- discuss major wildlife-related health issues such as Lyme disease and rabies.
- discuss the role of MDIFW and Maine Audubon in the protection, conservation and management of wildlife in Maine.

